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SERIAL NUMBER	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/327,744 10/24/94 STONE

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EXAMINER  
GOODMAN, C

C2M1/1121

DOMINIC J CHIANTERA  
UNITED TECHNOLOGIES CORPORATION  
PATENT DEPARTMENT  
MS 524 00  
HARTFORD CT 06101

ART UNIT PAPER NUMBER

3204

DATE MAILED: 11/21/95

This is a communication from the examiner in charge of your application.  
COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☐ Responsive to communication filed on \_\_\_\_\_ ☐ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), \_\_\_\_\_ days from the date of this letter.  
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

**Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:**

- ☒ Notice of References Cited by Examiner, PTO-892.
- ☒ Notice of Draftsman's Patent Drawing Review, PTO-948.
- ☐ Notice of Art Cited by Applicant, PTO-1449.
- ☐ Notice of Informal Patent Application, PTO-152.
- ☐ Information on How to Effect Drawing Changes, PTO-1474.
- ☐ \_\_\_\_\_

**Part II SUMMARY OF ACTION**

1. ☒ Claims 1-8 are pending in the application.

Of the above, claims \_\_\_\_\_ are withdrawn from consideration.

- ☐ Claims \_\_\_\_\_ have been cancelled.
- ☐ Claims \_\_\_\_\_ are allowed.
- ☒ Claims 1-8 are rejected.
- ☐ Claims \_\_\_\_\_ are objected to.
- ☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.
- ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
- ☐ Formal drawings are required in response to this Office action.
- ☐ The corrected or substitute drawings have been received on \_\_\_\_\_. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).
- ☐ The proposed additional or substitute sheet(s) of drawings, filed on \_\_\_\_\_, has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).
- ☐ The proposed drawing correction, filed \_\_\_\_\_, has been ☐ approved; ☐ disapproved (see explanation).
- ☐ Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. \_\_\_\_\_; filed on \_\_\_\_\_.
- ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
- ☐ Other

**EXAMINER'S ACTION**

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### **Part III DETAILED ACTION**

#### ***Specification***

1. The disclosure is objected to because of the following informalities:
  - i) Page 2, line 14, the phrase "an nozzle" has been changed to --a nozzle-- to correct what appears to be a typographical error.
  - ii) Page 4, line 25, it appears the phrase "see Figure 3, line 30" should be --see Figure 2, line 30--.
  - iii) Page 5, lines 15-16, the phrase "individual orifice energy decreases as the orifice diameter decreases" is confusing. According to fluid dynamics, the orifice energy (understood as the energy of the flow) would actually increase since there would be more back pressure build up due to the restricted opening.

Appropriate correction is required.

#### ***Drawings***

2. The drawings are objected to because they do not include certain reference signs mentioned in the description. 37 CFR § 1.84(f) states, "Reference signs not mentioned in the description shall not appear in the drawing and vice versa." The following reference

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signs are not included in the drawings: 34, 36, 38, and 40 (page 5, lines 1-8). Correction is required.

***Claim Rejections - 35 USC § 112***

3. Claims 3-5 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- i) In claims 3-5, the phrase "the pressure" lacks clear antecedent basis.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 C.F.R. § 1.56

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to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103.

5. Claims 1-8 are rejected under 35 U.S.C. § 103 as being unpatentable over Peters et al (European Patent Application 207,069).

Peters et al teaches a method of cutting honeycomb 73 in a ribbon direction (into the page of Fig. 1) by using high pressure jetting of water, the cutting action removing portions of the honeycomb thereof, comprising directing pressurized liquid at an angle  $\alpha$ ,  $\gamma$  of less than about  $90^\circ$  between the liquid 31, 32 and substrate 71, 72, through at least one orifice 21, 22 of a nozzle 11, 12, forming a laminar liquid flow out of the nozzle, and wherein the pressure of the liquid flow and the and the angles are within the claimed limits (see page 9, lines 13-34, page 10, and page 11, lines 1-27 and Figs. 1-8). Although Peters et al lacks positioning the pressurized liquid at the base of the honeycomb, Peters et al teaches that the position of the liquid 31, 32 is adjustable anywhere along the direction of the honeycomb structure (see page 11, lines 23-34 and page 12, lines 1-2) in order to cut bonding of different exfoliated materials. Therefore, it would have been an obvious modification to the method of Peters et al to direct the pressurized liquid at the locations as claimed in order to facilitate cutting and removal of different exfoliated materials.

6. Claims 1-8 are rejected under 35 U.S.C. § 103 as being unpatentable over McComas and Peters et al (European Patent Application 207,069).

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McComas teaches stripping a layer of material from a substrate. Peters et al teaches that it is well known to cut honeycomb material using a water jet. In view of McComas and Peters et al, it would have been obvious to one of ordinary skill in the art at the time the invention was made to remove honeycomb and braze from a substrate using a water jet in order to facilitate ease of removal..

*Conclusion*

7. Hediger, McComas et al, Wada et al, McGregor, Adaci et al, Carr, Shiembob, Ryan, Ackermann, Wada, Sloan, and Machine Design Article "Abrasive Waterjets Come of Age", May 10, 1990 are cited as pertinent art.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Goodman whose telephone number is (703) 308-0501.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-1148.

CG   
October 29, 1995

  
RINALDI I. RADA  
PRIMARY EXAMINER  
GROUP 3200